

Title (en)
AUGMENTED VIRTUALITY SELF VIEW

Title (de)
SELBSTANSICHT MIT ERWEITERTER VIRTUALITÄT

Title (fr)
AFFICHAGE PERSONNEL À VIRTUALITÉ AUGMENTÉE

Publication
EP 3839699 A1 20210623 (EN)

Application
EP 19218242 A 20191219

Priority
EP 19218242 A 20191219

Abstract (en)
A processor system (100) processes image data for rendering a virtual environment for a user present in a real environment. The system receives head tracking data (115) indicative of the orientation of the head of the user. An image processor (120) generates image data for rendering a viewport of the virtual environment on a display system (180) based on the head tracking data. A real-view area is defined in the virtual environment, having at least one boundary. The boundary corresponds to predetermined coordinates in the virtual environment. Thereby a corresponding part of the real environment is made visible in the real-view area, the part showing the real environment as perceived from the user head pose. Effectively the virtual environment is augmented by integrating part of the real environment via the real-view area.

IPC 8 full level
G06F 3/01 (2006.01)

CPC (source: EP US)
G02B 27/0093 (2013.01 - EP); **G02B 27/0172** (2013.01 - EP); **G06F 3/012** (2013.01 - EP); **G06T 7/174** (2016.12 - US); **G06T 7/194** (2016.12 - US); **G06T 19/006** (2013.01 - EP); **H04N 13/111** (2018.04 - US); **H04N 13/344** (2018.04 - US); **H04N 13/366** (2018.04 - US); **G02B 2027/0138** (2013.01 - EP); **G02B 2027/014** (2013.01 - EP); **G02B 2027/0187** (2013.01 - EP); **H04N 2013/0085** (2013.01 - US)

Citation (applicant)
• MILGRAM, PAUL ET AL.: "Telemanipulator and telepresence technologies", vol. 2351, 1995, INTERNATIONAL SOCIETY FOR OPTICS AND PHOTONICS, article "Augmented reality: A class of displays on the reality-virtuality continuum"
• MCGILLMARK ET AL.: "Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems", 2015, ACM, article "A dose of reality: Overcoming usability challenges in vr head-mounted displays"
• BUDHIRAJA, PULKIT ET AL.: "Where's my drink? Enabling peripheral real world interactions while using HMDs", ARXIV PREPRINT ARXIV: 1502.04744, 2015
• GUNTHERTOBIASINGMAR S. FRANKERAINER GROH: "2015 IEEE Symposium on 3D User Interfaces (3DUI)", 2015, IEEE, article "Augmented reality-the hands in the virtual environment"
• KANAMORIKOHEI ET AL.: "2018 IEEE International Symposium on Mixed and Augmented Reality (ISMAR)", 2018, IEEE, article "Obstacle avoidance method in real space for virtual reality immersion"
• VON WILLICHJULIUS ET AL.: "Proceedings of the 2019 on Designing Interactive Systems Conference", 2019, ACM, article "You Invaded my Tracking Space! Using Augmented Virtuality for Spotting Passersby in Room-Scale Virtual Reality"
• SUMAEVAN A.DAVID M. KRUMMARK BOLAS: "2011 IEEE International Symposium on VR Innovation", 2011, IEEE, article "Sharing space in mixed and virtual reality environments using a low-cost depth sensor"
• SIMSARIANKRISTIAN T.KARL-PETTER AKESSON, WINDOWS ON THE WORLD: AN EXAMPLE OF AUGMENTED VIRTUALITY, 1997

Citation (search report)
• [X1] US 2017287215 A1 20171005 - LALONDE PAUL ALBERT [US], et al
• [X1] US 2014361976 A1 20141211 - OSMAN STEVEN [US], et al
• [X1] US 2014364212 A1 20141211 - OSMAN STEVEN [US], et al

Cited by
US11430187B1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 3839699 A1 20210623; US 11659150 B2 20230523; US 2021195157 A1 20210624

DOCDB simple family (application)
EP 19218242 A 20191219; US 202017117764 A 20201210